

AMENDMENTS

IN THE SPECIFICATION:

- **Please replace the original specification and abstract with the enclosed substitute specification and abstract.**

IN THE DRAWINGS:

- **Please replace the drawings filed on February 26, 2001 with the enclosed drawings (5 sheets).**

IN THE CLAIMS:

- **Please amend the claims as follows:**

1. (once amended) A method of interrogating at least one fiber optic sensor, the sensor coupled to [the] a pipe and sensing at least one parameter of a fluid in [a] the pipe, the method comprising:
 - generating successive light pulses;
 - splitting the light pulses into first light pulses and second light pulses;
 - delaying the second light pulses a known time period relative to the first pulses;
 - combining the first and second light pulses onto a single optical fiber;
 - directing the first and second light pulses through a first periodic grating of low reflectivity, through the optical sensor and through a second periodic grating of low reflectivity;
 - receiving reflected first light pulses and reflected second light pulses from the first grating;
 - receiving reflected first light pulses and reflected second light pulses from the second grating; and